

WHAT IS CLAIMED IS:

1. A method of operating a printing system for using a plurality of processing modes for parallel processing of a print job into a printer-ready format for the printing of the print job, comprising:

splitting the print job into a plurality of job chunks;

assigning the job chunks to respective processing nodes for processing the job chunks into the printer-ready format;

in response to a page fault, executing an auto recovery in serial mode of operation, wherein the print job is redirected, without being split, to a single processing node; and

subjecting the redirected print job at the single processing node to serial processing.

2. The method as defined in **claim 1**, further comprising the step of purging all other pages in the print job from the system.

3. The method as defined in **claim 1**, further comprising the step of writing a log message in an error log for the redirected print job.

4. The method as defined in **claim 1**, further comprising the step of parallel processing a second print job at a plurality of processing nodes other than the single processing node while the redirected print job is subject to serial processing.

5. A method of operating a printing system for using a plurality of processing modes for parallel processing of a print job into a printer-ready format for the printing of the print job, comprising:

splitting the print job into a plurality of job chunks;

assigning the job chunks to respective processing nodes for processing the job chunks into the printer-ready format; and

enabling parallel processing of an unprotected PostScript job according to first and second processing modes respectively set according to a first and second respective job attributes;

wherein the implementation of the first processing mode causes the job to be split and chunks to be fed independently to a plurality of unprotected processing nodes, and wherein the implementation of the second processing mode is implemented using redundant-mode processing in which the entire job is sent concurrently to a plurality of unprotected processing nodes.

6. The method as defined in **claim 5**, wherein the a first job attribute is provided in the form of *Unprotected-Read-Only* and the second job attribute is provided in the form of *Unprotected-Read-Write*.

7. The method as defined in **claim 5**, further comprising the step of implementing a password to enforce virtual memory write permissions for the first processing mode, so as to fault a read-only job that attempts to write to virtual memory.

8. The method as defined in **claim 5**, further comprising the step of causing selected processing nodes to complete any prior jobs before switching to redundant mode processing.

9. A method of operating a printing system for using a plurality of processing modes for parallel processing of a print job into a printer-ready format for the printing of the print job, comprising:

splitting the print job into a plurality of job chunks;

assigning the job chunks to respective processing nodes for processing the job chunks into the printer-ready format;

performing auto-discovery of system hardware resources, wherein the available hardware resources are determined;

determining an optimal number of processing nodes for performing parallel processing of the print job in response to the determination of available hardware resources; and

operating the optimal number of processing nodes to perform the intended parallel processing of the print job.

10. The method as defined in **claim 9**, further comprising the step of setting the predetermined number of processing nodes to a single processing node in response to a determination of insufficient resources for performing parallel processing of the print job.

11. The method as defined in **claim 9**, further comprising the step of displaying at a graphical user interface at least one of the values of maximum, recommended, and allocated parallel RIP nodes.

12. The method as defined in **claim 11**, further comprising providing the step of alteration by a user of the value of at least one of the values of maximum, recommended, and allocated parallel RIP nodes.